CSMAC
Interim Report of the Spectrum Management Improvements Working Group

Preliminary Working Draft
For Discussion at the CSMAC Meeting on November 10, 2011

(We expect this to be revised based on discussion at the meeting and further work by the Working Group)

Next Question from Work Plan

- 6(a) – Expansion of data to support compatibility analysis – Use of automated processes for frequency selection, and compatibility analysis require more data than is commonly provided in licenses or assignments. How do we make a transition to a more complete data set? Is it important?

Questions Re-framed

- What types of data are needed to form a complete data set necessary to support spectrum planning activities, including frequency selection and compatibility analyses?

Types of data needed to form a complete data set sufficient for spectrum planning

- Administrative Information
  - Person primarily accountable for system operation
  - Contact information
  - Federal agency affiliation
  - Secondary contact/information

- Location Information
  - Geographic coordinates (if fixed)
  - Site address (if fixed)
  - Area of operation (if mobile)

- Technical Information – Transmitter
  - Manufacturer and model
  - Modulation
  - Power limits
  - Automatic power control parameters (if applicable)
  - Transmit spectra

- Technical Information – Receiver
  - Manufacturer and model
  - Detection threshold
  - Bandwidth (RF & IF)
  - Interference susceptibility curve(s) (T/I, C/I, etc.)

Types of data needed to form a complete data set sufficient for spectrum planning (cont'd)

- Technical Information – Antennas
  - Antenna manufacturer and model
  - Antenna pattern data
    - Horizontal & vertical
    - All polarizations

- Operational Information
  - Operating frequency(ies)/channel(s)
  - Occupied bandwidth
  - Transmit power
  - Number of receivers (if mobile)
  - Duty cycle (if not 24/7)
  - System description (service class)
  - Antenna configuration
    - Height (Tx & Rx)
    - Feed line type (Tx & Rx)
    - Orientation
    - Downtilt
    - Polarization
  - System installation date
  - Anticipated useful life
  - Level of priority (Low – High)

Still Under Consideration

- Receive-only devices
- Unlicensed spectrum/devices
- Use of waveform data
- Data to support cognitive radio/DSA
- Auto-frequency selection methodologies
- How to transition to these data sets

Follow Up

- FSMS development
  - To what extent will the FSMS accommodate these data elements?
  - Will the FSMS perform auto-frequency selection?